

What is claimed is:

1. An outdoor unit for a satellite television ground system comprising:

5        downlink circuitry operative to receive first and second satellite television signals from first and second satellites, process the first and second satellite television signals, and provide the processed first and second satellite television signals to an indoor unit of the satellite television ground system; and

10      uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal, and provide the processed uplink signal to a satellite transmitting antenna when the downlink circuitry is signal-locked with one of the first and second satellites.

15      2. The outdoor unit of claim 1, wherein the uplink circuitry is further operative to receive an uplink control signal indicating a signal-locked condition with one of the first and second satellites from the indoor unit.

20      3. The outdoor unit of claim 2, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal.

4. The outdoor unit of claim 3, wherein the uplink oscillator signal is derived from one of the first and second satellite television signals.

25      5. The outdoor unit of claim 4, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first and second satellite television signals.

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6. An outdoor unit for a satellite television ground system comprising:  
means for receiving first and second satellite television signals from first  
and second satellites;  
means for processing the first and second satellite television signals;  
5 means for providing the processed first and second satellite television  
signals to an indoor unit of the satellite television ground system;  
means for receiving an uplink signal from the indoor unit;  
means for processing the received uplink signal; and  
means for providing the processed uplink signal to a satellite transmitting  
10 antenna when the downlink circuitry is signal-locked with one of the first and  
second satellites.

7. The outdoor unit of claim 6, further comprising:

means for receiving an uplink control signal indicating a signal-locked  
15 condition with one of the first and second satellites from the indoor unit.

8. The outdoor unit of claim 7, wherein the uplink control signal comprises an  
uplink data signal and an uplink oscillator signal.

20 9. The outdoor unit of claim 8, wherein the uplink oscillator signal is derived from  
one of the first and second satellite television signals.

10. The outdoor unit of claim 9, wherein the uplink oscillator signal is derived  
from frequency conversion error data from one of the first and second satellite  
25 television signals.

11. In an outdoor unit of a satellite television ground system, a method of providing an uplink communication with a television broadcasting satellite comprising the steps of:

5 receiving first and second satellite television signals from first and second satellites;

processing the first and second satellite television signals;

providing the processed first and second satellite television signals to an indoor unit of the satellite television ground system;

receiving an uplink signal from the indoor unit;

10 processing the received uplink signal; and

providing the processed uplink signal to a satellite transmitting antenna when the downlink circuitry is signal-locked with one of the first and second satellites.

15 12. The method of claim 11, further comprising:

receiving an uplink control signal indicating a signal-locked condition with one of the first and second satellites from the indoor unit.

20 13. The method of claim 12, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal.

14. The method of claim 13, wherein the uplink oscillator signal is derived from one of the first and second satellite television signals.

25 15. The method of claim 14, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first and second satellite television signals.